

To: "Michael Link" [mlink@lgl.com]
Cc: "Guy Wade" [gwade@lgl.com]; Dr. Scott Raborn" [sraborn@lgl.com]
Bcc: []
From: CN=Phil North/OU=R10/O=USEPA/C=US
Sent: Wed 3/31/2010 11:48:41 PM
Subject: RE: Nushagak and Kvichak Smolts

Thanks for the reply Michael. You are correct in that this is not urgent. Next week is pretty open. Any time Tuesday through Thursday would work for me.

I asked some NOAA folks in Seattle the same question. I think their answer is currently being reviewed at Auk Bay.

Talarik Creek is not the only at-risk system in the Kvichak. With no plan from the project proponent we can only make educated guesses for now. But a large tailings dam in the North Fork Koktuli could result in discharge to the Chulitna. And pipeline spills could affect streams along Iliamna and beach spawning in the lake. There are various scenarios we will evaluate for the effects of spills, but any of the waters near the mine and its facilities could be affected.

I look forward to discussing this further. I need to be in Anchorage during the week of April 18. I we wait till then perhaps we can meet in person.

Phillip North
Environmental Protection Agency
Kenai River Center
514 Funny River Road
Soldotna, Alaska 99669
(907) 714-2483
fax 260-5992
north.phil@epa.gov

"To protect your rivers, protect your mountains."

From: "Michael Link" <mlink@lgl.com>
To: "Guy Wade" <gwade@lgl.com>, Phil North/R10/USEPA/US@EPA
Cc: "Dr. Scott Raborn" <sraborn@lgl.com>
Date: 03/31/2010 03:16 PM
Subject: RE: Nushagak and Kvichak Smolts

Hi Phil: Thanks for inquiring. This is an interesting challenge.

I did give this some thought earlier today and think that it is definitely a little tricky. For the Kvichak, it probably should be approached by using the portion of adult escapement (tower on the Kvichak) that Talarik represents multiplied by the Kvichak River smolt estimates. However, one should really take into account compensation or compensatory mortality within Iliamna, which would reduce the size of the estimate as derived above. Of course, this is better being discussed, but I thought a quick email to provide something to think about would be helpful prior to a phone call.

This week is a little tight for me to set up a call. My sense from your

message was this wasn't urgent. When might you like to discuss this on the phone. I'll cc Scott Raborn as he would be very helpful in such a discussion and maybe can tie him in if a call is arranged.

Michael

-----Original Message-----

From: Guy Wade [mailto:gwade@lgl.com]
Sent: Wednesday, March 31, 2010 10:42 AM
To: North.Phil@epamail.epa.gov; Michael Link
Subject: Re: Nushagak and Kvichak Smolts

Phil,

I wanted to let you know that I did receive your email. I will talk this over with Michael Link (Chief Scientist for BBSRI) and see if we can't provide you with some useful information in the next few days.

Thanks,

Guy

Guy Wade
gwade@lgl.com

Biologist/GIS
LGL Alaska Research Associates, Inc.
1101 E. 76th Avenue, Suite B
Anchorage, AK 99518
Phone: 907-562-3339
Fax: 907-562-7223

North.Phil@epamail.epa.gov wrote:

> Hi Guy,
> Carol Ann Woody gave me your contact information. I am an ecologist
> working on the Pebble Mine for the EPA aquatic resources program (often
> misnamed the wetlands program). I have been sketching out the issues we
> need to address in the expected upcoming review. I am trying to get a
> sense of the range of potential loss of smolt emigration given the mine
> foot print as well as possible chronic small scale spills and
> catastrophic failure of a large tailings dam. I am looking down stream
> at marine ecosystems in Bristol Bay, Bering Sea and the North Pacific.
>
> My initial estimates of smolt numbers were based on an ADFG management
> rule-of-thumb of 10% egg to smolt survival. A recent presentation by
> Carol Ann Woody suggested that this produces number that are way too
> high. She suggested I check with you. If you can spare a moment can
> you give me a little direction in how to estimate reasonable smolt
> numbers. Is that possible? I am not looking to make a firm prediction.
> I want to get a ballpark range so that I can get a sense of the
> downstream effects from loss of forage fish in marine ecosystems. We
> are trying to figure out if that might be an issue.

>
> Phil
>
> Phillip North
> Environmental Protection Agency
> Kenai River Center
> 514 Funny River Road
> Soldotna, Alaska 99669
> (907) 714-2483
> fax 260-5992
> north.phil@epa.gov
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